

## Our markets

We operate in three main markets – currency, identity and product authentication, all of which have strong prospects for long term sustainable growth.



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### Currency market

The total amount of cash in circulation has been growing at c4% a year<sup>1</sup> globally over the past decade and is expected to continue to increase at a similar rate in future years. GDP and population growth are the main drivers for cash growth.

Most banknotes and the substrates on which they are printed are produced by state print works (SPWs) and state paper mills (SPMs) of the respective issuing countries. The rest of the demand is met by commercial banknote printers and paper makers. This situation has remained relatively stable over the past decade.

While many customers buy finished banknotes from one supplier, some follow a multi-supplier model which involves disaggregating their note buying into individual components: substrate, security features and printing.

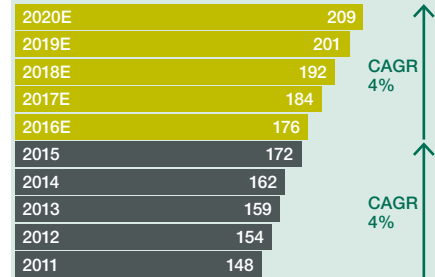
Around 11% of the c172bn banknotes issued globally<sup>2</sup> in 2016 were printed by a handful of commercial printers. De La Rue is the clear market leader, with 27% market share.

While the increase of cash in circulation drives growth in the commercial banknote printing market, the timing of orders can be unpredictable. The degree of uncertainty is exacerbated by overspill caused by the SPWs being unable to meet internal demand. Overspill orders typically account for 1% to 3% of the total banknote market and therefore have a noticeable effect on the commercial print and paper markets.

Of the banknotes in circulation, 97% are printed on cotton-based paper with the remainder on next generation substrates such as polymer. Including overspill orders, around 45–50% of the substrate market is supplied by commercial paper or polymer manufacturers. The commercial paper market is highly competitive, with more than a dozen

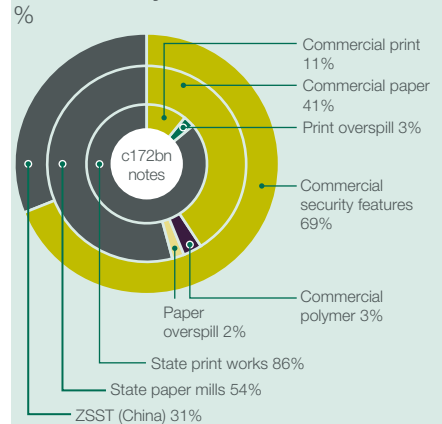
### Global banknote issuance

Billions of notes



Source: De La Rue estimates

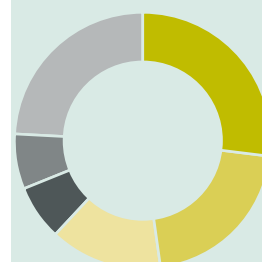
### Commercially available markets



Source: De La Rue estimates

### Commercial print market by volume %

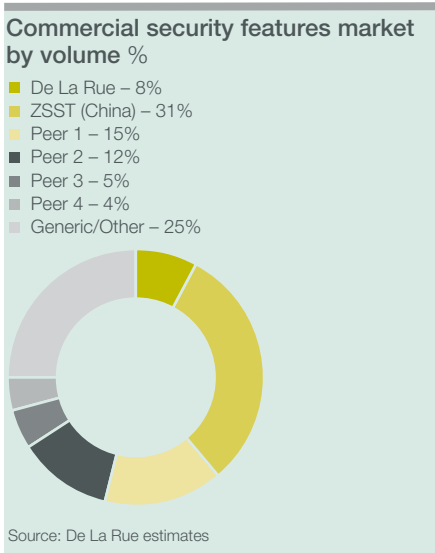
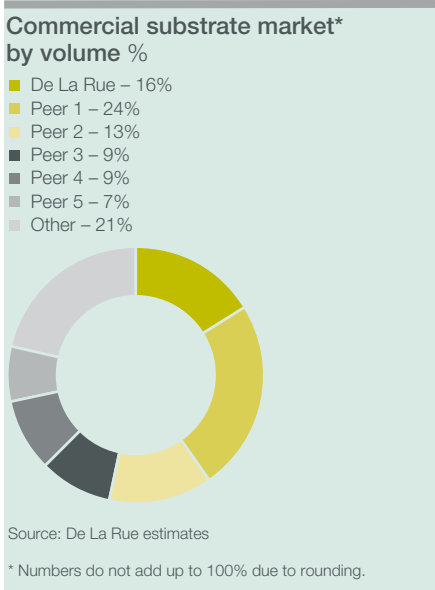
- De La Rue – 27%
- Peer 1 – 21%
- Peer 2 – 14%
- Peer 3 – 7%
- Peer 4 – 7%
- Other – 24%



Source: De La Rue estimates. Excluding overspill orders

<sup>1</sup> De La Rue estimate.

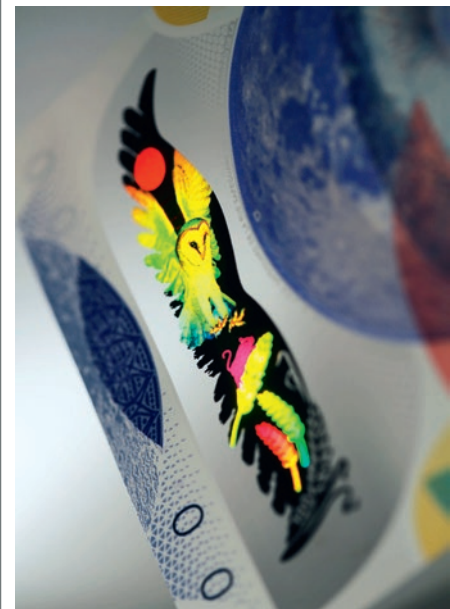
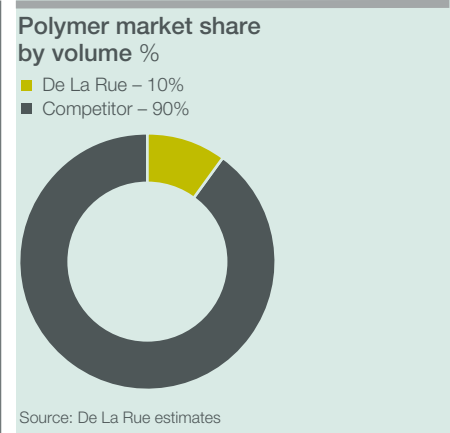
<sup>2</sup> De La Rue estimate.



well-established suppliers. De La Rue is one of the top three commercial paper makers with market share ranging between 12% and 15%. In recent years, there has been a persistent overcapacity in the market due to some countries switching to insourcing. Although the gap between supply and demand has narrowed in the last 12 months, we expect oversupply to remain a feature of the market in the long run.

Polymer currently accounts for 3% of the substrate market. As central banks seek to reduce the 'cost of cash', polymer is becoming more popular due to its durability and greater security<sup>3</sup>. More economies are switching or considering switching paper banknotes to polymer notes, and we expect the market to double in size in the next five years<sup>4</sup>. We entered the market in 2012, with our polymer substrate Safeguard<sup>®</sup>. This has allowed us access to the entire substrate market, including the part of state manufacturing sector that was previously unavailable.

While pricing in print and paper remains stable, customers are increasingly seeking to access the benefits of added-value security features such as threads and holograms and this is making the ownership of such innovations an attractive opportunity. Almost all countries buy security features or IP licences on the commercial market. Some 90% of the c172bn banknotes issued in 2016 incorporated security threads, while only 13% included features such as holographic patches and stripes. However, we believe growth in holographic features will accelerate as the polymer market expands. De La Rue is the third largest commercial supplier for security threads and the fourth largest for holographic features.



<sup>3</sup> According to the Bank of England's study in 2013, polymer notes are more secure and last 2.5 times longer than cotton-based banknotes.

Our markets continued



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**Identity market**

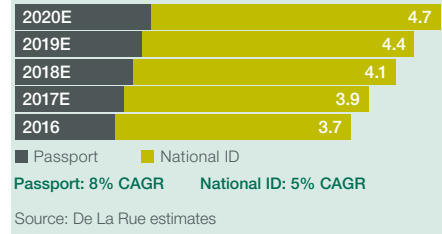
Against a background of increasing population and greater globalisation, demand for identity products and services continues to rise as governments increasingly focus on improving border security and their citizens' access to services. While physical tokens such as passports and ID cards are important, there is a growing emphasis on end-to-end solutions that combine secure tokens with systems and services.

The global identity market, including passports, ID cards, and the associated digital solutions, is valued at around £3.7bn today and expected to grow at c6% a year<sup>1</sup>. Although many countries have in-house security print capabilities, many still choose to source printing or individual components from the commercial market. More than half of the identity market is available to commercial manufacturers.

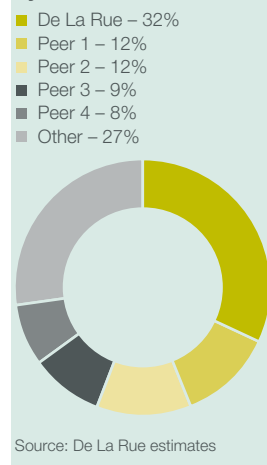
With an annual growth of c8%, the passport market remains attractive, although market drivers and customer preferences are changing. Customers increasingly value security features and the systems and services surrounding the physical product. While we believe demand for physical passports will remain for the long term, the market is transitioning from Machine Readable Passports to chip-based ePassports. This further drives demand for full integration of end-to-end solutions.

Globally, around 100 countries have compulsory identity card schemes. The national ID market is expected to grow at 5%. Today, over 70% of the national IDs in circulation globally are chip-based. Technological advances in recent years have enabled new types of ID schemes, combining traditional ID functionality with payment methods.

**Global identity market**  
£bn



**Commercial passport market by volume %**



<sup>1</sup> De La Rue estimate.



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### Product authentication market

Globally, the significant increase in counterfeit goods and illicit trade means that governments are losing billions of dollars in tax revenues. At the same time, legitimate businesses and brand owners are being undermined and consumer confidence is being eroded.

Excisable fast moving consumer goods such as tobacco and alcohol are widely recognised to be among the most illegally traded products in the world. The UK Government estimated that £3.6bn was lost to illicit trade in alcohol and tobacco in 2014–15<sup>1</sup>. The need for protecting tax revenue, together with continuing changes to government policy worldwide, remain the key drivers for growth in the tax stamp market.

The rise of counterfeit goods, unauthorised production and sales channel diversion also means that businesses and brand owners are losing revenue and brand equity. The rapid growth of eCommerce and easy global shipping have exacerbated the problem, with 90% of online retailers having experienced up to a 10% loss of revenue due to online counterfeit sales<sup>2</sup>. In 2015, the total recorded loss due to fake goods amounted to \$1.2bn. The global market for brand protection is forecast to grow at c9% a year, rising to \$4.2bn in 2020<sup>3</sup>.

Both the tax stamp and brand protection markets are highly fragmented, with most operators offering only partial solutions such as serialised labels and tamper-evident packaging. However, there is a growing trend towards integrated, end-to-end solutions that provide a combination of highly secure labels and unique ID together with systems that can track, trace and authenticate products throughout the supply chain. As technologies advance and costs reduce, features such as printed electronics and RFID<sup>4</sup> tags in packaging and labels are gaining popularity. Online shopping is also driving authentication through a touchpoint of consumer smartphones.

### Global brand protection market \$bn

2020E	4.2	
2017E	2.7	CAGR 16% ↑
2010	2.1	CAGR 9% ↑

Source: The Future of Anti-Counterfeiting, Brand Protection and Security Packaging to 2020, Smithers Pira



<sup>1</sup> Measuring tax gaps 2016 edition.

<sup>2</sup> Global Online Shopping Report.

<sup>3</sup> The future of anti-counterfeiting, brand protection and security packaging to 2020, Smithers Pira.

<sup>4</sup> Radio Frequency Identification.